
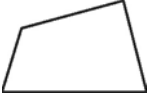

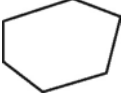


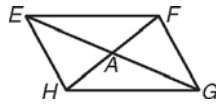
Dear Family,

In this chapter, your child will be learning about polygons. Your child will study the different types of polygons, including quadrilaterals and parallelograms, and explore their properties and attributes.

Your child will learn to classify polygons on the basis of their sides and angles. The following table summarizes some of the different polygons your child will encounter.

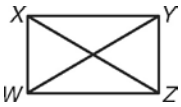
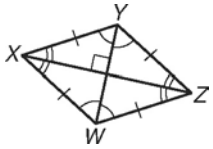
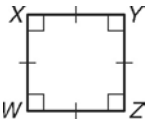
Polygon	# of sides	Sum of interior angles	Example
Triangle	3	180°	
Quadrilateral	4	360°	
Pentagon	5	540°	
Hexagon	6	720°	

Your child will learn the properties of different types of quadrilaterals. A quadrilateral with two pairs of parallel sides is called a parallelogram. The following figure illustrates some of the important properties of parallelograms.



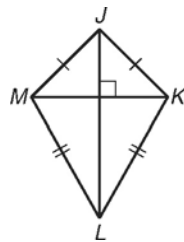
1. The opposite sides of a parallelogram are congruent. So in this figure,
 $\overline{EF} \cong \overline{HG}$ & $\overline{EH} \cong \overline{FG}$.
2. The opposite angles of a parallelogram are congruent. This means that
 $\angle FEH \cong \angle FGH$ & $\angle EFG \cong \angle EHG$.
3. The consecutive angles of a parallelogram are supplementary. In this figure,
 $m\angle HEF + m\angle EFG = 180^\circ$
 $m\angle HEF + m\angle EHG = 180^\circ$
 $m\angle FGH + m\angle EHG = 180^\circ$
 $m\angle FGH + m\angle EFG = 180^\circ$
4. The diagonals of a parallelogram bisect each other. In this figure, this means
that $\overline{EA} \cong \overline{AG}$
that $\overline{HA} \cong \overline{AF}$.

Your child will continue to study quadrilaterals as he or she learns about three other special types of parallelograms. These are the rectangle, rhombus, and square. Their properties are summarized in this table.

Quadrilateral	Example	Properties
Rectangle		A parallelogram with four right angles. The diagonals are congruent and opposite sides are congruent.
Rhombus		A parallelogram with four congruent sides. The diagonals are perpendicular, and each diagonal bisects a pair of opposite angles.
Square		A parallelogram with four right angles and four congruent sides. All properties that are true for a rectangle and a rhombus are also true for a square.

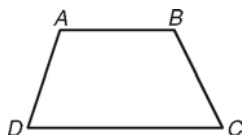
The last two quadrilaterals that your child will study are kites and trapezoids.

A kite is a quadrilateral with exactly two pairs of congruent consecutive sides.



In this kite, $\overline{MJ} \cong \overline{JK}$, $\overline{KL} \cong \overline{ML}$, $\overline{MK} \perp \overline{JL}$, & $\angle JML \cong \angle JKL$.

A trapezoid is a quadrilateral with exactly one pair of parallel sides.



In this trapezoid, $\overline{AB} \parallel \overline{DC}$.

There is no test for this unit. Instead, students will be required to make a board game to show that they have learned the concepts of the unit. This is the same number of points as a test. With the rubric given, students should have a clear target to earn all 250 points for the project. You should see your child working on this project at home since it requires a lot more than a test.

The following are the assignments and the assessments for this unit. As a reminder the actual dates when the assignments are assigned can be found on the [assignment calendar](#) on my [school webpage](#). This can be found under classrooms on the [high school webpage](#).

6 Are You Ready Pretest & skills.

6-1 Properties and Attributes of Polygons (p 399) 17, 18, 19, 21, 23-28, 45, 51, 52.

6-2 Properties of Parallelograms (p 407) 17-25 odd, 28, 42, 46-50.

6-3 Conditions for Parallelograms (p 414) 9, 10, 11, 13-16, 21-23, 24-25, 34.

6A Ready Go Pretest & post-tests. 6A Ready to Go On & posttests.

Chapter 6 Quiz 1.

6-4 Properties of Special Parallelograms (p 424) 11, 13-16, 36, 41-43, 44.

6-5 Conditions for Special Parallelograms (p 434) 6-10, 14, 16, 17, 27, 29, 33.

6-6 Properties of Kites and Trapezoids (p 445) 13, 14, 15, 17-25, 33, 40, 42, 45.

6B Ready to Go On & posttests

Chapter 6 Quiz 2.

Chapter 6 Practice test.

Unit 6 Project.